BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

BYATARAYANAPURA DIVISION

BYATARAYANAPURA SUB DIVISOIN

Name of the Work : **Modified Estimate for Improvements to Roads and Asphalting at Maruthi layout sarrounding area in Ward No. 06, Byatarayanapura sub Division.**

Estimated Est Cost : **83,54,856.45**

Job Code: **006-20-000177**

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Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Name of Work: Modified Estimate for Improvements to Roads and Asphalting at Maruthi layout Surrounding area Dasarahalli Village In Ward No.06 Thanisandra Byatarayanapura Sub Division

Item No	Discription of Item	Unit	No	Length	Breadth	Depth	Qty	Rate	Amount
1	Removing & Refixing stone slabs of drains and pointing in C.M (1:3)								
	Maruthi Layout								
	Drain Desilt	**Sqm**							
	Muniraj House Rd								
			2	120.20	0.90		216.62		
							216.62		
							43.32		
	Deduct 20% Damaged						173.30		
							63.00	**116.85**	**7361.91**
	Consider 35%								
	Approved Rate	**116.85**							
2	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3								
	Maruthi Layout								
	Drain Desilt	**Cum**							
	Muniraj House Rd		2	120.20	0.50	0.35	42.22		
	CC Drain								
	Mount Sales Pen Store Rd		2	65.00	1.10	1.00	143.11		
	11th Cross Rd (From 1st Main Rd)		2	84.90	1.10	1.00	186.78		
	10th A Cross Rd (From Mount Sales Pen Store)		2	87.60	1.10	1.00	192.72		
	9th A Cross Rd (From 1st Main Rd)		2	92.70	1.10	1.00	203.94		
	Culvert		4	7.40	1.50	1.00	44.55		
							813.32	**217.96**	**177271.23**
	Approved Rate	**217.96**							
3	Providing granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., complete. - do - 7.5 cms thick								
	Maruthi Layout								
	Drain Desilt	**Sqm**							
	Muniraj House Rd								
			2	120.20	0.90		216.63		
							216.63		

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	Deduct 35% Damaged						79.00		
							79.00	**779.03**	**61543.37**
	Approved Rate	**779.03**							
4	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	Maruthi Layout								
	Flagging Course PCC	**Cum**							
	Muniraj House Rd								
			2	120.20	0.20	0.15	7.21		
	Flagging Course Coping								
	Muniraj House Rd								
			2	120.20	0.15	0.13	4.64		
							11.86	**6034.11**	**71535.98**
	Approved Rate	**6034.11**							
5	KSRB 5-14: Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications. KBS No.5.4 - do - with solid concrete blocks of size 400x200x200mm								
	Maruthi Layout								
	Flagging Course	**Sqm**							
	Muniraj House Rd								
			2	120.20		0.40	104.26		
							104.26	**1070.60**	**111621.31**
	Approved Rate	**1070.60**							
6	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. MORTH Specification No. 2100								
	Maruthi Layout								
	CC Drain	**Cum**							
	Mount Sales Pen Store Rd		2	65.00	1.10	0.15	21.47		
	11th Cross Rd (From 1st Main Rd)		2	84.90	1.10	0.15	28.02		
	10th A Cross Rd (From Mount Sales Pen Store)		2	87.60	1.10	0.15	28.91		

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	9th A Cross Rd (From 1st Main Rd)		2	92.70	1.10	0.15	30.59		
	Culvert		4	7.40	1.50	0.20	8.91		
							117.89	**5692.45**	**671097.23**
	Approved Rate	**5692.45**							
7	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications.-do- Wall & bottom thickness 15cm								
	Maruthi Layout								
	CC Drain Raft	**Cum**							
	Mount Sales Pen Store Rd		2	65.00	1.10	0.15	21.47		
	11th Cross Rd (From 1st Main Rd)		2	84.90	1.10	0.15	28.02		
	10th A Cross Rd (From Mount Sales Pen Store)		2	87.60	1.10	0.15	28.91		
	9th A Cross Rd (From 1st Main Rd)		2	92.70	1.10	0.15	30.59		
	CC Drain Wall								
	Mount Sales Pen Store Rd		4	65.00	0.15	0.60	23.40		
	11th Cross Rd (From 1st Main Rd)		4	84.90	0.15	0.60	30.56		
	10th A Cross Rd (From Mount Sales Pen Store)		4	87.60	0.15	0.60	31.54		
	9th A Cross Rd (From 1st Main Rd)		4	92.70	0.15	0.60	33.37		
							227.85		
	Culvert Raft		4	7.40	1.20	0.20	7.16		
	Culvert Raft		8	7.40	0.23	0.45	6.13		
							13.29		
							241.15		
	Upto 125%						**232.73**	**7423.00**	**1727517.68**
	Above 125%						**8.42**	**7423.00**	**62528.15**
	Approved Rate	**7423.00**							

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8	KSRRB M2200-6. Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200-do- TMT Bars Fe 500								
		MT							
	70Kg/Cum for drain			227.85	0.07		15.95		
	90Kg/Cum for culvert			13.29	0.09		1.20		
							17.15		
	Upto 125%						**16.63**	**75936.10**	**1262437.66**
	Above 125%						**0.52**	**75936.10**	**39583.40**
	Approved Rate	**75936.10**							
9	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M25 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Maruthi Layout								
	CC Drain	**Sqm**							
	Mount Sales Pen Store Rd		2	65.00	0.90		117.00		
	11th Cross Rd (From 1st Main Rd)		2	84.90	0.90		152.82		
	10th A Cross Rd (From Mount Sales Pen Store)		2	87.60	0.90		157.68		
	9th A Cross Rd (From 1st Main Rd)		2	92.70	0.90		166.86		
							594.36		
	Deduct 20% Front of House						117.36		
							477.00	**2453.62**	**1170385.62**
	Approved Rate	**2453.62**							
10	Providing and Fixing pre cast covering Slab 250mm thick made out of M25 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)								
		Sqm							
	Culvert Raft		4	7.40	1.20		37.83		
							37.83	**5688.36**	**215196.65**
	Approved Rate	**5688.36**							
11	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301								
	Maruthi Layout								
	Asphalt Road	**Cum**							

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	Mount Sales Pen Store Rd		1	100.50	5.80	0.25	145.75		
	11th Cross Rd		1	85.00	5.45	0.25	116.23		
	10th A Cross Rd		1	88.00	5.30	0.25	116.60		
	9th A Cross Rd		1	96.70	6.15	0.25	148.68		
	Muniraj House Rd		1	128.20	5.05	0.25	161.85		
							689.11	**59.07**	**40705.63**
	Approved Rate	**59.07**							
12	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision.								
	Maruthi Layout								
	Asphalt Road	**Cum**							
	Mount Sales Pen Store Rd		1	100.50	1.20	0.15	17.95		
	11th Cross Rd		1	85.00	1.30	0.15	16.46		
	10th A Cross Rd		1	88.00	1.30	0.15	17.06		
	9th A Cross Rd		1	96.70	1.20	0.15	17.33		
	Muniraj House Rd		1	128.20	1.20	0.15	22.98		
							91.79	**2094.47**	**192241.07**
	Approved Rate	**2094.47**							
13	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	Maruthi Layout								
	Asphalt Road	**Cum**							
	Mount Sales Pen Store Rd		1	100.50	5.80	0.25	145.73		
	11th Cross Rd		1	85.00	5.45	0.25	116.23		
	10th A Cross Rd		1	88.00	5.30	0.25	116.60		
	9th A Cross Rd		1	96.70	6.15	0.25	148.65		
	Muniraj House Rd		1	128.20	5.05	0.30	194.22		
							721.43	**2101.14**	**1515825.19**
	Approved Rate	**2101.14**							
14	KSRRB M500-6. Providing and applying primer coat with S.S.bitumen emulsion on prepared surface of granular base such as WMMincluding cleaning of road surface and spraying primer at the rate of0.60 kg / sqm using mechanical means complete as per specifications.Clause 502 of MORTH V revision								
	Maruthi Layout								
	Asphalt Road	**Sqm**							
	Mount Sales Pen Store Rd		1	100.50	5.80		584.19		

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	11th Cross Rd		1	85.00	5.45		463.28		
	10th A Cross Rd		1	88.00	5.30		466.75		
	9th A Cross Rd		1	96.70	6.15		594.74		
	Muniraj House Rd		1	128.20	5.05		647.46		
							2756.43	30.05	82830.71
	Approved Rate	**30.05**							
15	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.– do – using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)								
	Maruthi Layout								
	Asphalt Road	**Cum**							
	Mount Sales Pen Store Rd		1	100.50	5.80	0.04	23.39		
	11th Cross Rd		1	85.00	5.45	0.04	18.53		
	10th A Cross Rd		1	88.00	5.30	0.04	18.66		
	9th A Cross Rd		1	96.70	6.15	0.04	23.79		
	Muniraj House Rd		1	128.20	5.05	0.04	25.90		
							110.26	8140.82	897583.46
	Approved Rate	**8140.82**							
16	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803								
	Maruthi Layout								
	Asphalt Road	**Sqm**							
	Mount Sales Pen Store Rd		2	100.50	0.10		20.10		
	11th Cross Rd		2	85.00	0.10		17.00		
	10th A Cross Rd		2	88.00	0.10		17.60		
	9th A Cross Rd		2	96.70	0.10		19.34		
	Muniraj House Rd		2	128.20	0.10		25.64		
							99.68	477.43	47590.22
	Approved Rate	**477.43**							
								Construction Cost	8354856.45

Assistant Engineer
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